

Recovery Plan Action Status

Plan Name: Final Recovery Plan for the Southwestern Willow Flycatcher

Plan Status: Final

Plan Date: 30-Aug-02

Lead Agency: USFWS

Lead Office: Arizona Ecological Services Field Office

(1892)

(242-0210)

Species	Action Priority #	Action #	Action Description	Action Status	Est. Initiation Date	Est. Completion Date	Responsible Parties	Work Type	Labor Type	Action Comments
Southwestern willow flycatcher (Empidonax traillii extimus)	1	1.1.1	Develop management plans to reduce threats and promote processes that secure, restore, and enhance currently suitable and potentially suitable habitat	Ongoing Current	FY 1995 - FY 1999	FY 2020	National Tropical Botanical Garden, U.S. Bureau of Land Management, U.S. Bureau of Reclamation, U.S. Department of Defense, National Park Service, U.S. Fish and Wildlife Service, U.S. Geological Survey, U.S. Forest Service, Natural Resources Conservation Service	Management: Planning	Species Expert	20% of MUs complete 1 plan each year until 100%. At \$20,000 per management plan/year, \$20,000 x 6 Mus = \$120,000/year Plans being developed and executed for SRP properties and USBR properties purchased for mitigation associated with Roosevelt Lake BO and HCP. LA Water and Power developed plan and MOU with Ventura FO for land along Owens River. Handful of Tribes in CA, AZ, and NM developed plans during critical habitat process to manage lands. U-Bar Ranch in NM on Gila River, developed plan during critical habitat process. Rio Grande State Park developed management plan associated with critical habitat.

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Southwestern willow flycatcher (Empidonax traillii extimus)	2	1.1.2.1.1	Identify dams where modification of dam operating rules will benefit recovery of the flycatcher	Ongoing Current	FY 2000 - FY 2004	FY 2020	U.S. Bureau of Reclamation, U.S. Federal Energy Regulatory Commission, U.S. Army Corps of Engineers	Management: Planning	Species Expert	6 RUs x 1.5 FTEs/RU = 9 FTEs. 9 FTEs @ \$61,000/year = \$549,000/year Alamo Dam along the Bill Williams River in west central Arizona has been identified and a group is currently working to develop operating regimes that can improve habitat. Do not believe this has been completed for the range of the flycatcher.
Southwestern willow flycatcher (Empidonax traillii extimus)	2	1.1.2.1.2	Identify dams where modification of dam operations will benefit recovery of the flycatcher by taking advantage of system flexibility and water surpluses/flood flows	Ongoing Current	FY 2000 - FY 2004	FY 2020	U.S. Bureau of Reclamation, U.S. Federal Energy Regulatory Commission, U.S. Army Corps of Engineers	Management: Planning	Species Expert	Same funds as 1.1.2.1.1. see previous item for discussion
Southwestern willow flycatcher (Empidonax traillii extimus)	3	1.1.2.1.3	Determine feasibility of simulating the natural hydrograph to restore/enhance riparian systems	Ongoing Current	FY 2000 - FY 2004	FY 2020	Glen Canyon Adaptive Management Workgroup, U.S. Bureau of Reclamation, U.S. Army Corps of Engineers, Department of Energy	Management: Planning	Species Expert	6 Rus x 1.5 FTEs/RU = 9 FTEs. 9 FTEs @ \$61,000/year = \$549,000 year. Feasibility studies to be conducted for those areas identified in 1.1.2.1.1- 1.1.2.1.2 Through HCP process and NEPA, this alternative was explored for Roosevelt Dam in central Arizona and is being explored for Verde River dams in AZ and I believe was explored for Lower Colorado River dams. Many dams throughout range to explore.

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Southwestern willow flycatcher (Empidonax traillii extimus)	2	1.1.2.1.4	Determine feasibility of managing reservoir levels to establish and maintain lake fringe and inflow habitat	Ongoing Current	FY 2000 - FY 2004	FY 2020	U.S. Bureau of Reclamation, U.S. Army Corps of Engineers	Management: Planning	Species Expert	Same funds as 1.1.2.1.3. Feasibility studies to be conducted for those areas identified in 1.1.2.1.1-1.1.2.1.2 This is being explored at Horseshoe Lake in Central Arizona and is expected to be implemented and finalized in an upcoming HCP.
Southwestern willow flycatcher (Empidonax traillii extimus)	3	1.1.2.1.5	Determine feasibility of using surplus and/or flood flows to increase or add water to marsh areas between levees and on flood flows	Ongoing Current	FY 2000 - FY 2004	FY 2020	Middle Rio Grande Conservancy District, Multi-Species Conservation Program, Lower Colorado River, U.S. Bureau of Reclamation, U.S. Army Corps of Engineers	Management: Planning	Species Expert	Same funds as 1.1.2.1.3. Feasibility studies to be conducted for those areas identified in 1.1.2.1.1-1.1.2.1.2 I believe this opportunity is largely believed to be available along the Rio Grande, but I am unfamiliar with how this is currently being evaluated. This option is being explored near Cotton Lane in project being developed along Gila River in Maricopa County.
Southwestern willow flycatcher (Empidonax traillii extimus)	2	1.1.2.1.6	Determine feasibility of keeping daily ramping rates and daily fluctuations for dam release as gradual as possible to prevent bank erosion and loss of riparian vegetation, except when mimicking flood flows	Not Started	FY 2000 - FY 2004	FY 2020	Glen Canyon Adaptive Management Workgroup, U.S. Bureau of Reclamation, U.S. Army Corps of Engineers	Management: Planning	Species Expert	Same funds as 1.1.2.1.3. Feasibility studies to be conducted for those areas identified in 1.1.2.1.1-1.1.2.1.2. Not familiar with implementation of this effort to date.

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Southwestern willow flycatcher (Empidonax traillii extimus)	3	1.1.2.1.7	Determine feasibility of augmenting sediment to sediment-depleted systems	Ongoing Current	FY 2000 - FY 2004	FY 2020	Glen Canyon Adaptive Management Workgroup, Middle Rio Grande Conservancy District, Multi-Species Conservation Program, Lower Colorado River, U.S. Bureau of Reclamation, U.S. Army Corps of Engineers	Management: Planning	Species Expert	Same funds as 1.1.2.1.3. Feasibility studies to be conducted for those areas identified in 1.1.2.1.1-1.1.2.1.2. This option was explored to determine if lower Verde River was sediment starved in order to assess impacts of dam operations.
Southwestern willow flycatcher (Empidonax traillii extimus)	2	1.1.2.1.8	Implement 1.1.2.1.3-1.1.2.1.7, where feasible	Ongoing Current	FY 2000 - FY 2004	FY 2020	U.S. Bureau of Reclamation, U.S. Army Corps of Engineers	Management: Land Use	Species Expert	Costs dependant on feasibility findings. Note comments in the fiels above on known efforts implemented or expected to be implemented in the future. Anticipate that Alamo Dam will be operated in a way that is better for flycatcher habitat. Expect Horseshoe Dam to be operated to grow, maintain, and regenerate riparian habitat.
Southwestern willow flycatcher (Empidonax traillii extimus)	2	1.1.2.1.9	Monitor 1.1.2.1.3-1.1.2.1.7 and provide feedback to the Technical Subgroup	Ongoing Current	FY 2000 - FY 2004	FY 2020	U.S. Bureau of Reclamation, U.S. Army Corps of Engineers	Other	Species Expert	Cost dependent on feasibility findings

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Southwestern willow flycatcher (Empidonax traillii extimus)	1	1.1.2.2.1.1.	Increase efficiency of groundwater management to expand habitat, favor native over exotic plants and reduce fire potential	Ongoing Current	FY 2000 - FY 2004	FY 2020	Irrigation Districts, Middle Rio Grande Conservancy District, Arizona Department of Water Resources, City of Albuquerque, New Mexico	Management: Land Use	Species Expert	Critical areas need to be identified and strategies agreed upon. Some properties purchased by SRP for WIFLs have retired groundwater pumping. Am not familiar with any larger efforts that have been initiated specifically to address proliferation of exotic plants and fire risk.
Southwestern willow flycatcher (Empidonax traillii extimus)	2	1.1.2.2.1.2	Use urban waste water outfall and rural irrigation delivery and trail waters for habitat restoration to expand habitat, favor native plants, and reduce fire potential	Ongoing Current	FY 1995 - FY 1999	FY 2020	City of San Diego, California, Irrigation Districts, Middle Rio Grande Conservancy District, City of Albuquerque, New Mexico, Metropolitan Water District, City of Phoenix, Arizona, City of Las Vegas, Nevada	Management: Land Use	Species Expert	Water districts to identify opportunities for implementation and determine associated costs. Areas such as Tres Rios along the Gila River in Maricopa County in Arizona are using management of waste water to improve riparian habitat that could provide habitat for WIFLs.
Southwestern willow flycatcher (Empidonax traillii extimus)	2	1.1.2.2.1.3	Provide (reestablish) instream flows to expand habitat, favor native over exotic plants, and reduce fire potential	Ongoing Current	FY 1995 - FY 1999	FY 2020	City of San Diego, California, Irrigation Districts, Middle Rio Grande Conservancy District, Arizona Department of Water Resources, City of Albuquerque, New Mexico, Metropolitan Water District, City of Phoenix, Arizona, City of Las Vegas, Nevada, U.S. Bureau of Reclamation, U.S. Army Corps of Engineers, Phoenix	Management: Land Use	Species Expert	Costs should be coordinated with 1.1.2.1.3-1.1.2.1.7. The purchase of properties and retiring of groundwater pumping on the upper San Pedro River has led to re-establishment of surface flow on the San Pedro River.

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Southwestern willow flycatcher (Empidonax traillii extimus)	2	1.1.2.2.2	Expand the active channel area that support currently suitable and potentially suitable flycatcher habitat by increasing the width of levees and using available flows to mimic overbank flow	Not Started	FY 2000 - FY 2004	FY 2020	U.S. Bureau of Reclamation, U.S. Army Corps of Engineers	Management: Habitat Maintenance and Manipulation	Species Expert	Costs should be coordinated with 1.1.2.1.3-1.1.2.1.7. I am not familiar with this task being initiated anywhere
Southwestern willow flycatcher (Empidonax traillii extimus)	2	1.1.2.2.3	Reactivate flood plains to expand native riparian forests	Not Started	FY 2000 - FY 2004	FY 2020	Middle Rio Grande Conservancy District, Multi-Species Conservation Program, Lower Colorado River, U.S. Bureau of Reclamation, U.S. Army Corps of Engineers	Management: Habitat Maintenance and Manipulation	Species Expert	Costs should be coordinated with 1.1.2.1.3-1.1.2.1.7. Am not familiar with this task being initiated yet
Southwestern willow flycatcher (Empidonax traillii extimus)	3	1.1.2.2.4	Restore more natural channel geometry (width, depth, bank profiles) where the return of the natural hydrograph will be insufficient to improve habitat	Ongoing Current	FY 1995 - FY 1999	FY 2020	U.S. Bureau of Reclamation, U.S. Army Corps of Engineers	Management: Habitat Maintenance and Manipulation	Contract	Some projects, using techniques perfected by Dave Rosgen have been initiated to help stream geomorphology. Tonto NF has reconfigured Cherry Creek. Gila NF has improved Gila Bird area through floodplain scraping, etc.
Southwestern willow flycatcher (Empidonax traillii extimus)	2	1.1.2.3.1	Develop fire risk and management plans	Ongoing Current	FY 1995 - FY 1999	FY 2020	U.S. Bureau of Land Management, U.S. Bureau of Reclamation, U.S. Department of Defense, U.S. Fish and Wildlife Service, U.S. Forest Service	Management: Planning	Species Expert	Same formula as 1.1.1. Variety of efforts along the Lower Colorado River have fire plans for riparian areas. SRP purchased properties have fire plans.
Southwestern willow flycatcher (Empidonax traillii extimus)	2	1.1.2.3.2	Suppress fires	Ongoing Current	FY 1995 - FY 1999	FY 2020	U.S. Bureau of Reclamation, U.S. Department of Defense, U.S. Fish and Wildlife Service, U.S. Forest Service, U.S. Army Corps of Engineers	Work type not yet selected	Labor type not yet selected	Sites to be prioritized in management plans in 1.1.2.3.1

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Southwestern willow flycatcher (Empidonax traillii extimus)	1	1.1.2.3.3	Restore ground water, base flows, and flooding	Ongoing Current	FY 1995 - FY 1999	FY 2020	Irrigation Districts, Middle Rio Grande Conservancy District, Arizona Department of Water Resources, Metropolitan Water District, U.S. Bureau of Reclamation, U.S. Army Corps of Engineers	Management: Land Use	Species Expert	Identify opportunities from implementing 1.1.1. A variety of tasks that are associated with some tasks that are being discussed and implemented in some areas. For example, Alamo Dam operations are developing strategies for periodic flooding. Retirement of groundwater pumping in some purchased properties have elevated groundwater.
Southwestern willow flycatcher (Empidonax traillii extimus)	3	1.1.2.3.4.1	Manage/reduce exotic species that contribute to increased fire incidence	Ongoing Current	FY 1995 - FY 1999	FY 2020	U.S. Bureau of Land Management, U.S. Bureau of Reclamation, U.S. Department of Defense, U.S. Fish and Wildlife Service, U.S. Forest Service, Natural Resources Conservation Service	Management: Habitat Maintenance and Manipulation	Species Expert	Identify opportunities from implementing 1.1.1. Projects like this are occurring throughout the Southwest and can be expected to continue to occur.
Southwestern willow flycatcher (Empidonax traillii extimus)	3	1.1.2.3.4.2.	Use water more efficiently and reduce fertilizer applications	Not Started	FY 2000 - FY 2004	FY 2020	U.S. Bureau of Land Management, U.S. Fish and Wildlife Service, Natural Resources Conservation Service	Management: Land Use	Species Expert	Opportunities based on local conditions. Not aware of this being initiated.
Southwestern willow flycatcher (Empidonax traillii extimus)	3	1.1.2.3.5	Reduce recreational fires	Ongoing Current	FY 2000 - FY 2004	FY 2020	U.S. Bureau of Land Management, U.S. Bureau of Reclamation, U.S. Fish and Wildlife Service, U.S. Forest Service	Management: Other	Species Expert	4 agencies x 6 RU = \$10,000/year = \$240,000/year. Management of fires is occurring throughout the west to reduce risk of wildfire.

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Southwestern willow flycatcher (Empidonax traillii extimus)	2	1.1.3.1.1.1	If livestock grazing is a major stressor implement conservative livestock grazing guidelines. Implement general livestock grazing guidelines from Appendix G (see also Section E. Narrative Outline for Recovery Actions) in occupied, suitable or restorable habitat (restorable habitats are riparian systems that have the appropriate hydrologic and ecologic setting to be suitable flycatcher habitat.)	Ongoing Current	FY 2000 - FY 2004	FY 2020	U.S. Bureau of Land Management, U.S. Forest Service	Management: Land Use	Species Expert	Reevaluate with 5 years revision of plan 24 FTEs @ \$61,000/year = \$1,464,000/year (Assuming 12 FTEs per agency). Some agencies are implementing these guidelines and some are not.
Southwestern willow flycatcher (Empidonax traillii extimus)	2	1.1.3.1.1.2	Determine appropriate use areas for grazing	Ongoing Current	FY 1995 - FY 1999	FY 2020	Nevada Department of Wildlife, Arizona Department of Game and Fish, Texas Department of Parks and Wildlife, New Mexico Department of Fish & Wildlife, U.S. Bureau of Land Management, U.S. Fish and Wildlife Service, California Department of Fish and Game, U.S. Forest Service, Colorado Division of Wildlife	Management: Land Use	Species Expert	Same funds as 1.1.3.1.1.1. Evaluation of land use activities like this are ongoing.
Southwestern willow flycatcher (Empidonax traillii extimus)	2	1.1.3.1.1.3	Reconfigure grazing management units	Ongoing Current	FY 1995 - FY 1999	FY 2020	U.S. Bureau of Land Management, U.S. Forest Service	Management: Land Use	Species Expert	Same funds as 1.1.3.1.1.1. Evaluation of grazing areas are ongoing.
Southwestern willow flycatcher (Empidonax traillii extimus)	3	1.1.3.1.1.4	Improve documentation of grazing practices	Ongoing Current	FY 2000 - FY 2004	FY 2020	U.S. Bureau of Land Management, U.S. Forest Service	Other	Species Expert	Same funds as 1.1.3.1.1.1

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Southwestern willow flycatcher (Empidonax traillii extimus)	3	1.1.3.1.2	Manage wild ungulates	Ongoing Current	FY 2000 - FY 2004	FY 2020	Nevada Department of Wildlife, Arizona Department of Game and Fish, Texas Department of Parks and Wildlife, New Mexico Department of Fish & Wildlife, U.S. Bureau of Land Management, U.S. Fish and Wildlife Service, California Department of Fish and Game, U.S. Forest Service, Colorado Division of Wildlife	Management: Land Use	Species Expert	Can be accomplished through existing and ongoing programs activities; no new funds needed. Some places in White Mts of Arizona, elk fencing is being installed to improve riparian habitat.
Southwestern willow flycatcher (Empidonax traillii extimus)	3	1.1.3.1.3	Manage keystone species	Ongoing Current	FY 2000 - FY 2004	FY 2020	Nevada Department of Wildlife, Arizona Department of Game and Fish, Texas Department of Parks and Wildlife, New Mexico Department of Fish & Wildlife, U.S. Bureau of Land Management, U.S. Fish and Wildlife Service, California Department of Fish and Game, U.S. Forest Service, Colorado Division of Wildlife	Management: Land Use	Species Expert	Can be accomplished through existing and ongoing program activities; no new funds needed

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Southwestern willow flycatcher (Empidonax traillii extimus)	2	1.1.3.2.1	Develop exotic species management plans	Ongoing Current	FY 2000 - FY 2004	FY 2020	California Department of Food and Agriculture, Nevada Department of Wildlife, National Tropical Botanical Garden, Arizona Department of Game and Fish, Texas Department of Parks and Wildlife, New Mexico Department of Fish & Wildlife, Middle Rio Grande Conservancy District, Nevada Department of Agriculture, Arizona Department of Agriculture, Texas Department of Agriculture, Colorado Department of Agriculture, New Mexico Department of Agriculture, U.S. Bureau of Land Management, U.S. Bureau of Reclamation, U.S. Department of Defense, U.S. Fish and Wildlife Service, California Department of Fish and Game, U.S. Forest Service, U.S. Army Corps of Engineers, Colorado Division of Wildlife, Natural Resources Conservation Service	Management: Planning	Species Expert	20% of MUs complete 1 plan each year until 100%. At \$20,000 per management plan/year, \$20,000 x 6 MUs/year = \$120,000/year. SRP properties and variety of locations have developed management plans with an exotic species component to them.

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Southwestern willow flycatcher (Empidonax traillii extimus)	3	1.1.3.2.2	Coordinate exotic species management efforts	Ongoing Current	FY 2000 - FY 2004	FY 2020	California Department of Food and Agriculture, Nevada Department of Wildlife, National Tropical Botanical Garden, Arizona Department of Game and Fish, Texas Department of Parks and Wildlife, New Mexico Department of Fish & Wildlife, Middle Rio Grande Conservancy District, Multi-Species Conservation Program, Lower Colorado River, Nevada Department of Agriculture, Arizona Department of Agriculture, Texas Department of Agriculture, Colorado Department of Agriculture, New Mexico Department of Agriculture, U.S. Bureau of Land Management, U.S. Bureau of Reclamation, U.S. Department of Defense, U.S. Fish and Wildlife Service, California Department of Fish and Game, U.S. Forest Service, Colorado Division of Wildlife, Natural Resources Conservation Service	Management: Planning	Species Expert	6 RUs x 1 FTE/RU @ \$61,000/years = \$366,000/year x 5 years = \$1,830,000. Some plans are coordinated and others have not been coordinated with the FWS.

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Southwestern willow flycatcher (Empidonax traillii extimus)	2	1.1.3.2.3.1	Eliminate physical stresses, such as high salinity or reduced stream flows, that favor exotic plants	Ongoing Current	FY 2000 - FY 2004	FY 2020	Nevada Department of Wildlife, Arizona Department of Game and Fish, Texas Department of Parks and Wildlife, New Mexico Department of Fish & Wildlife, U.S. Bureau of Reclamation, U.S. Fish and Wildlife Service, California Department of Fish and Game, U.S. Army Corps of Engineers, Colorado Division of Wildlife	Management: Land Use	Species Expert	Opportunities identified in 1.1.3.2.1. Some efforts have occurred where property has been purchased and managed. Efforts like Alamo Dam reoperation addresses this issue.
Southwestern willow flycatcher (Empidonax traillii extimus)	2	1.1.3.2.3.2	Create or allow for a river hydrograph that restores the natural flood disturbance regime	Ongoing Current	FY 2000 - FY 2004	FY 2020	U.S. Bureau of Reclamation, U.S. Army Corps of Engineers	Management: Land Use	Species Expert	To identify appropriate areas, 6 RU x 1 FTE/RU @ \$61,000 = \$366,000/year. FY03-30 funds dependent on feasibility findings in FY01-02. Similar to activities identified earlier...Alamo Dam is one area where this is being explored.
Southwestern willow flycatcher (Empidonax traillii extimus)	2	1.1.3.2.3.3	Restore ungulate herbivory to intensities and types under which native plant species are more competitive	Ongoing Current	FY 2000 - FY 2004	FY 2020	Nevada Department of Wildlife, Arizona Department of Game and Fish, Texas Department of Parks and Wildlife, New Mexico Department of Fish & Wildlife, U.S. Bureau of Land Management, U.S. Fish and Wildlife Service, California Department of Fish and Game, U.S. Forest Service, Colorado Division of Wildlife	Management: Land Use	Species Expert	Coordinate with 1.1.3.1.2

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Southwestern willow flycatcher (Empidonax traillii extimus)	1	1.1.3.2.4	Retain native riparian vegetation in floodplains or channels	Ongoing Current	FY 1995 - FY 1999	FY 2020	California Department of Food and Agriculture, Nevada Department of Wildlife, Arizona Department of Game and Fish, Texas Department of Parks and Wildlife, New Mexico Department of Fish & Wildlife, Nevada Department of Agriculture, Arizona Department of Agriculture, Texas Department of Agriculture, Colorado Department of Agriculture, New Mexico Department of Agriculture, U.S. Bureau of Land Management, U.S. Bureau of Reclamation, U.S. Fish and Wildlife Service, California Department of Fish and Game, U.S. Forest Service, Colorado Division of Wildlife	Management: Land Use	Species Expert	\$100,000 for each RU (6) for 3 years to retain native riparian vegetation where immediately threatened. Prioritize with plans in 1.1.1 for longer-term management

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Southwestern willow flycatcher (Empidonax traillii extimus)	2	1.1.3.2.5.1	At native dominated sites, retain tamarisk in occupied flycatcher habitat and, where appropriate, in suitable but unoccupied habitat, unless there is a trend for steady increase of tamarisk	Ongoing Current	FY 2000 - FY 2004	FY 2020	California Department of Food and Agriculture, Nevada Department of Wildlife, National Tropical Botanical Garden, Arizona Department of Game and Fish, Texas Department of Parks and Wildlife, New Mexico Department of Fish & Wildlife, Nevada Department of Agriculture, Arizona Department of Agriculture, Texas Department of Agriculture, Colorado Department of Agriculture, New Mexico Department of Agriculture, U.S. Bureau of Land Management, U.S. Bureau of Reclamation, U.S. Fish and Wildlife Service, California Department of Fish and Game, U.S. Forest Service, Colorado Division of Wildlife, Natural Resources Conservation Service	Management: Land Use	Species Expert	Coordinate with 1.1.2.3.3
Southwestern willow flycatcher (Empidonax traillii extimus)	2	1.1.3.2.5.2	If needed, increase habitat quality within stands of exotic plants by implementing restorative actions such as seasonal flooding	Ongoing Current	FY 2000 - FY 2004	FY 2020	U.S. Bureau of Reclamation, U.S. Army Corps of Engineers	Management: Land Use	Species Expert	Coordinate with 1.1.2.3.3

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Southwestern willow flycatcher (Empidonax traillii extimus)	3	1.1.3.2.6.1	In suitable and potential habitats where exotic species are to be removed through chemical or mechanical means, use a temporally staged approach to clear areas so some mature habitat remains throughout the restoration period for potential use by flycatchers	Unknown	FY 2000 - FY 2004	FY 2020	California Department of Food and Agriculture, Nevada Department of Agriculture, Arizona Department of Agriculture, Texas Department of Agriculture, Colorado Department of Agriculture, New Mexico Department of Agriculture, U.S. Bureau of Land Management, U.S. Fish and Wildlife Service, U.S. Forest Service, Natural Resources Conservation Service	Management: Land Use	Species Expert	Depends on planned site-specific management actions. Not familiar with an effort that has taken this approach.
Southwestern willow flycatcher (Empidonax traillii extimus)	2	1.1.3.2.6.2	Release habitat-targeted biocontrol agents only outside the occupied breeding range for the flycatcher	Ongoing Current	FY 2000 - FY 2004	FY 2020	U.S. Department of Agriculture, U.S. Fish and Wildlife Service, U.S. Geological Survey	Management: Other	Species Expert	Costs not accrued within range of flycatcher. Believe APHIS has gone against Recovery Plan and introduced beetle in NV. Also, beetles have been released within flycatcher's range in UT, TX, and NM. Briefing for R2 Director was prepared to generate uniformed treatment of this issue in FWS so that beetles do not enter areas where native vegetation can not grow due to land management choices and to address consultation on 2005 critical habitat designation. Meeting tween FWS in TX, NM, and AZ was proposed but cancelled due to lack of funds at end of year.

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Southwestern willow flycatcher (Empidonax traillii extimus)	3	1.1.3.3.1.	Reduce impacts from recreationists	Ongoing Current	FY 2000 - FY 2004	FY 2020	California Department of Parks and Recreation, Nevada Division of State Parks, Texas Department of Parks and Wildlife, Arizona State Parks, Colorado State Parks, New Mexico State Parks, U.S. Bureau of Land Management, National Park Service, U.S. Forest Service	Management: Land Use	Species Expert	4 agencies x 6 RU = 24 FTEs @ \$61,000/year = \$1,464,000/year. Reassess at 5 year revision. This has been initiated at Roosevelt Lake through SRP HCP.
Southwestern willow flycatcher (Empidonax traillii extimus)	3	1.1.3.3.2.	Confine camping areas	Unknown	FY 2000 - FY 2004	FY 2020	California Department of Parks and Recreation, Nevada Division of State Parks, Texas Department of Parks and Wildlife, Arizona State Parks, Colorado State Parks, New Mexico State Parks, U.S. Bureau of Land Management, National Park Service, U.S. Forest Service	Management: Land Use	Species Expert	Same funds as 1.1.3.3.1. Unfamiliar with the need to initiate this task yet.
Southwestern willow flycatcher (Empidonax traillii extimus)	3	1.1.3.3.3	Restore habitat impacted by recreation	Unknown	FY 2000 - FY 2004	FY 2020	California Department of Parks and Recreation, Nevada Division of State Parks, Texas Department of Parks and Wildlife, Arizona State Parks, Colorado State Parks, New Mexico State Parks, U.S. Bureau of Land Management, National Park Service, U.S. Forest Service	Management: Habitat Maintenance and Manipulation	Species Expert	Same funds as 1.1.3.3.1. Unknown whether this task has been initiated.

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Southwestern willow flycatcher (Empidonax traillii extimus)	3	1.1.3.3.4	Place designated recreation shooting areas away from riparian areas	Unknown	FY 2000 - FY 2004	FY 2020	Nevada Department of Wildlife, Arizona Department of Game and Fish, Texas Department of Parks and Wildlife, New Mexico Department of Fish & Wildlife, U.S. Bureau of Land Management, U.S. Fish and Wildlife Service, California Department of Fish and Game, U.S. Forest Service, Colorado Division of Wildlife	Work type not yet selected	Labor type not yet selected	Same funds as 1.1.3.3.1 Unknown whether this issue has been identified and whether it has been initiated.

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Southwestern willow flycatcher (Empidonax traillii extimus)	3	1.1.3.3.5	Minimize attractants to scavenger, predators, and brown-headed cowbirds	Ongoing Current	FY 1995 - FY 1999	FY 2020	California Department of Food and Agriculture, California Department of Parks and Recreation, Nevada Department of Wildlife, Nevada Division of State Parks, National Tropical Botanical Garden, Arizona Department of Game and Fish, Texas Department of Parks and Wildlife, New Mexico Department of Fish & Wildlife, Nevada Department of Agriculture, Arizona Department of Agriculture, Texas Department of Agriculture, Colorado Department of Agriculture, New Mexico Department of Agriculture, Arizona State Parks, Colorado State Parks, New Mexico State Parks, U.S. Bureau of Land Management, California Department of Fish and Game, U.S. Forest Service, Colorado Division of Wildlife, Natural Resources Conservation Service	Management: Predator and Competitor Control	Species Expert	Same funds as 1.1.3.3.1 This has been implemented through some opinions

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Southwestern willow flycatcher (Empidonax traillii extimus)	3	1.1.3.3.6	Provide on-site monitors where recreation conflicts exists	Ongoing Current	FY 2000 - FY 2004	FY 2020	California Department of Parks and Recreation, Nevada Department of Wildlife, Nevada Division of State Parks, Arizona Department of Game and Fish, Texas Department of Parks and Wildlife, New Mexico Department of Fish & Wildlife, Arizona State Parks, Colorado State Parks, New Mexico State Parks, U.S. Bureau of Land Management, National Park Service, U.S. Fish and Wildlife Service, California Department of Fish and Game, U.S. Forest Service, Colorado Division of Wildlife	Management: Land Use	Species Expert	Same funds as 1.1.3.3.1. This task is being implemented at Roosevelt Lake through SRP HCP.
Southwestern willow flycatcher (Empidonax traillii extimus)	2	1.2.1	Evaluate and provide rangewide prioritization of non-Federal lands	Ongoing Current	FY 2000 - FY 2004	FY 2020	Nevada Department of Wildlife, National Tropical Botanical Garden, Arizona Department of Game and Fish, Texas Department of Parks and Wildlife, New Mexico Department of Fish & Wildlife, U.S. Bureau of Land Management, U.S. Bureau of Reclamation, U.S. Fish and Wildlife Service, California Department of Fish and Game, U.S. Forest Service, Colorado Division of Wildlife, Natural Resources Conservation Service	Management: Planning	Species Expert	AGFD's habitat suitability model can predict some of this in central Arizona, but implement and prioritization has not occurred throughout AZ or other sw states to my knowledge.

Species	Action Priority #	Action #	Action Description	Action Status	Est. Initiation Date	Est. Completion Date	Responsible Parties	Work Type	Labor Type	Action Comments
Southwestern willow flycatcher (Empidonax traillii extimus)	1	1.2.2	Achieve protection of occupied habitats	Ongoing Current	FY 1995 - FY 1999	FY 2020	U.S. Bureau of Land Management, U.S. Fish and Wildlife Service, U.S. Forest Service, Natural Resources Conservation Service	Management: Land Use	Species Expert	Approximately half of currently known territories occur on federal lands and are already protected. Assume that half (975) of total number of territories needed to delist the species (1950) need protection. Based on the Recovery Plan, each territory = 1.1 ha. Cost of protection of 1 territory is estimated at \$2600/ha. Years 1-5: 500 territories x 1.1 ha x \$2600/ha. Years 6-20: 250 territories x 1.1 ha x \$2600/ha. Years 21-30: 225 territories x 1.1 ha x \$2600/ha. Some lands, especially those under HCPs and opinions, are protected, but this is a continued effort.
Southwestern willow flycatcher (Empidonax traillii extimus)	2	1.2.3	Provide technical assistance to conserve and enhance occupied habitats on non-Federal lands	Ongoing Current	FY 1995 - FY 1999	FY 2020	U.S. Department of Agriculture, U.S. Department of Interior	Other: Information and Education	Species Expert	32 MU x 0.5 FTE/year = \$976000/year Continuing effort across the birds range.
Southwestern willow flycatcher (Empidonax traillii extimus)	2	1.2.4	Pursue joint ventures toward flycatcher conservation	Ongoing Current	FY 2000 - FY 2004	FY 2020	U.S. Fish and Wildlife Service	Research: Population Surveys	Species Expert	For projects along U.S.-Mexico border. Sonoran Joint Venture has worked with Mexican Biologists to survey for flycatchers in Mexico.

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Southwestern willow flycatcher (Empidonax traillii extimus)	2	1.3.1	Work with tribes to establish a regular system of surveys and monitoring, and train tribal staff in the flycatcher survey protocol	Ongoing Current	FY 1995 - FY 1999	FY 2020	U.S. Department of Interior	Other: Information and Education	Species Expert	4(Phoenix, Albuquerque, Southern California, Utah) regional workshops through BIA area offices, at \$2500/workshops + travel costs per year. FWS, State Wildlife Depts, USGS, etc. provide training annually.
Southwestern willow flycatcher (Empidonax traillii extimus)	3	1.3.2	Determine protocols for information sharing	Ongoing Current	FY 1995 - FY 1999	FY 2020	U.S. Department of Interior	Other: Information and Education	Species Expert	4 BIA area offices (as above) x 0.25 FTEs/office @\$61,000 FTE. Agencies continue to work together to share information.
Southwestern willow flycatcher (Empidonax traillii extimus)	2	1.3.3	Maintain an incumbent in the position of tribal Liaison to the Technical Subgroup	Ongoing Current	FY 2000 - FY 2004	FY 2020	U.S. Fish and Wildlife Service	Other	Species Expert	Travel costs. Technical Team has not met since completion of the Plan.
Southwestern willow flycatcher (Empidonax traillii extimus)	2	1.3.4	Provide technical assistance to tribes that have flycatchers on their lands	Ongoing Current	FY 1995 - FY 1999	FY 2020	U.S. Bureau of Reclamation, U.S. Bureau of Indian Affairs, U.S. Fish and Wildlife Service	Other: Information and Education	Internal Technical Assistance	1 FTE @ \$61000/year x 4 BIA area offices. FWS offers technical assistance. Recently provided Tribes with information about critical habitat, developed management plan templates for them, etc.
Southwestern willow flycatcher (Empidonax traillii extimus)	2	1.3.5	Support tribal efforts to improve currently suitable and potentially suitable habitat	Ongoing Current	FY 1995 - FY 1999	FY 2020	U.S. Bureau of Reclamation, U.S. Bureau of Indian Affairs, U.S. Fish and Wildlife Service	Management: Planning	Internal Technical Assistance	Same funds as 1.3.4. FWS continues to assist tribes in efforts to improve habitat. FWS developed management plan template and plan reviews.

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Southwestern willow flycatcher (Empidonax traillii extimus)	3	1.3.6	Work with tribes to determine the extent to which tribal water rights might or might not be available to aid in conservation and recovery of the flycatcher	Unknown	FY 2000 - FY 2004	FY 2020	U.S. Bureau of Reclamation, U.S. Bureau of Indian Affairs, U.S. Fish and Wildlife Service	Other: Information and Education	Internal Technical Assistance	Same funds as 1.3.4. Not familiar with this task being initiated by agencies either in FWS or BIA or USBR, etc.
Southwestern willow flycatcher (Empidonax traillii extimus)	3	1.3.7	Provide aid in developing education programs and opportunities that further flycatcher recovery	Ongoing Current	FY 1995 - FY 1999	FY 2020	U.S. Bureau of Indian Affairs, U.S. Fish and Wildlife Service	Other: Information and Education	Species Expert	Same funds as 1.3.4. Materials from many agencies have been produced to advance the knowledge of flycatchers.

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Southwestern willow flycatcher (Empidonax traillii extimus)	1	2.1.1	Conserve and manage all existing breeding sites	Ongoing Current	FY 1995 - FY 1999	FY 2020	California Department of Food and Agriculture, California Department of Parks and Recreation, Nevada Department of Wildlife, Nevada Division of State Parks, National Tropical Botanical Garden, Arizona Department of Game and Fish, Texas Department of Parks and Wildlife, New Mexico Department of Fish & Wildlife, Nevada Department of Agriculture, Arizona Department of Agriculture, Texas Department of Agriculture, Colorado Department of Agriculture, New Mexico Department of Agriculture, Arizona State Parks, Colorado State Parks, New Mexico State Parks, U.S. Bureau of Land Management, U.S. Bureau of Reclamation, U.S. Department of Defense, National Park Service, U.S. Fish and Wildlife Service, U.S. Geological Survey, California Department of Fish and Game, U.S. Forest Service, Colorado Division of Wildlife, Natural Resources Conservation Service	Management: Land Use	Species Expert	Same funds as 1.2.2. This is an ongoing effort.

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Southwestern willow flycatcher (Empidonax traillii extimus)	1	2.1.2	Secure , maintain, and enhance largest populations	Ongoing Current	FY 1995 - FY 1999	FY 2020	California Department of Food and Agriculture, California Department of Parks and Recreation, Nevada Department of Wildlife, Nevada Division of State Parks, National Tropical Botanical Garden, Arizona Department of Game and Fish, Texas Department of Parks and Wildlife, New Mexico Department of Fish & Wildlife, Nevada Department of Agriculture, Arizona Department of Agriculture, Texas Department of Agriculture, Colorado Department of Agriculture, New Mexico Department of Agriculture, Arizona State Parks, Colorado State Parks, New Mexico State Parks, U.S. Bureau of Land Management, U.S. Bureau of Reclamation, U.S. Department of Defense, National Park Service, U.S. Fish and Wildlife Service, U.S. Geological Survey, California Department of Fish and Game, U.S. Forest Service, Colorado Division of Wildlife, Natural Resources Conservation Service	Management: Land Use	Species Expert	See narrative outline 2.1.2 for list of 12 largest populations. \$10,000/year x 12 populations = \$120,000/year Issue continues to evolve as locations are detected. Roosevelt HCP and management by Tonto NF is helping manage population at Roosevelt Lake in AZ. Land is being periodically purchased along San Pedro and Gila Rivers in central Arizona, but there continues to be pressure for consumption, diversion, etc. of water which threatens the security of these sites and adjacent ones that are not secure in land ownership.

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Southwestern willow flycatcher (Empidonax traillii extimus)	2	2.1.3.1	Use existing habitat acquisition / conservation priorities	Ongoing Current	FY 1995 - FY 1999	FY 2020	U.S. Bureau of Land Management, U.S. Bureau of Reclamation, U.S. Department of Defense, U.S. Fish and Wildlife Service, U.S. Forest Service, Natural Resources Conservation Service	Management: Planning	Species Expert	No additional funds necessary
Southwestern willow flycatcher (Empidonax traillii extimus)	2	2.1.4	Enhance connectivity to currently isolated occupied sites	Ongoing Current	FY 1995 - FY 1999	FY 2020	Nevada Department of Wildlife, National Tropical Botanical Garden, Arizona Department of Game and Fish, Texas Department of Parks and Wildlife, New Mexico Department of Fish & Wildlife, U.S. Bureau of Land Management, U.S. Bureau of Reclamation, U.S. Department of Defense, U.S. Fish and Wildlife Service, California Department of Fish and Game, U.S. Forest Service, Colorado Division of Wildlife, Natural Resources Conservation Service	Management: Land Use	Species Expert	6 RU x 7 agencies x \$75,000/year = \$2,100,000/year

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Southwestern willow flycatcher (Empidonax traillii extimus)	2	2.1.5	Facilitate establishment of new, large populations in areas where none exists, through habitat restoration	Ongoing Current	FY 1995 - FY 1999	FY 2020	Nevada Department of Wildlife, National Tropical Botanical Garden, Arizona Department of Game and Fish, Texas Department of Parks and Wildlife, New Mexico Department of Fish & Wildlife, Middle Rio Grande Conservancy District, Multi-Species Conservation Program, Lower Colorado River, U.S. Bureau of Land Management, U.S. Bureau of Reclamation, U.S. Department of Defense, U.S. Fish and Wildlife Service, California Department of Fish and Game, U.S. Forest Service, Colorado Division of Wildlife, Natural Resources Conservation Service	Management: Land Use	Species Expert	Assume 1 new site of at least 10 territories in each RU. 1 territory = 1.1 ha. Costs of \$2600 per territory. 6 RU x 10 territories x 1.1 ha x \$2600 = \$172,000/year The LCR MSCP is striving to develop populations through restoration.

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Southwestern willow flycatcher (Empidonax traillii extimus)	2	2.1.6	Increase populations sizes at small occupied sites	Ongoing Current	FY 1995 - FY 1999	FY 2020	Nevada Department of Wildlife, Arizona Department of Game and Fish, Texas Department of Parks and Wildlife, New Mexico Department of Fish & Wildlife, Middle Rio Grande Conservancy District, Multi-Species Conservation Program, Lower Colorado River, U.S. Bureau of Land Management, U.S. Bureau of Reclamation, U.S. Department of Defense, U.S. Fish and Wildlife Service, California Department of Fish and Game, U.S. Forest Service, Colorado Division of Wildlife, Natural Resources Conservation Service	Management: Land Use	Species Expert	Based on Recovery Plan, approximately 223 sites currently exist, minus 12 large populations; assume that 25% of small sites will be increased by 10 territories at 1.1 ha/territory @ \$2600/territory (25%) (211) x 11 ha x \$2600 = \$1,509,000 Many locations throughout birds range are being managed to hopefully increase the amount of known territories. For example, efforts through Horseshoe HCP are attempting to improve and maintain birds in an area where dam operations are erratic. Elephant Butte site in NM has grown from territories in the teens to over 100 territories.

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Southwestern willow flycatcher (Empidonax traillii extimus)	2	3.1.1.1	Increase the amount and quality of riparian habitat to increase habitat patch sizes and local flycatcher populations sizes thereby minimizing levels and impacts of cowbird parasitism	Ongoing Current	FY 1995 - FY 1999	FY 2020	Nevada Department of Wildlife, Arizona Department of Game and Fish, Texas Department of Parks and Wildlife, New Mexico Department of Fish & Wildlife, Middle Rio Grande Conservancy District, Multi-Species Conservation Program, Lower Colorado River, U.S. Bureau of Land Management, U.S. Bureau of Reclamation, U.S. Department of Defense, U.S. Fish and Wildlife Service, California Department of Fish and Game, U.S. Forest Service, Colorado Division of Wildlife, Natural Resources Conservation Service	Management: Land Use	Species Expert	Coordinate with 2.1.4-2.1.6

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Southwestern willow flycatcher (Empidonax traillii extimus)	2	3.1.1.2	Develop cowbird management programs if warranted by baseline data on parasitism rates	Ongoing Current	FY 2000 - FY 2004	FY 2020	Nevada Department of Wildlife, Arizona Department of Game and Fish, Texas Department of Parks and Wildlife, New Mexico Department of Fish & Wildlife, Middle Rio Grande Conservancy District, Multi-Species Conservation Program, Lower Colorado River, U.S. Bureau of Land Management, U.S. Bureau of Reclamation, U.S. Department of Defense, U.S. Fish and Wildlife Service, California Department of Fish and Game, U.S. Forest Service, Colorado Division of Wildlife, Natural Resources Conservation Service	Management: Predator and Competitor Control	Species Expert	See FY 01-02 baseline data collection, action 6.5.1. Coordinate funds with 3.1.1.3. Has occurred in many areas around Az including Havasu, Big Sandy, San Pedro River, Roosevelt Lake, Alpine. This approach is being developed for SRP's Roosevelt HCP for management at properties they have acquired.

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Southwestern willow flycatcher (Empidonax traillii extimus)	2	3.1.1.3	Implement cowbird management programs if warranted by baseline data on parasitism rates	Ongoing Current	FY 2000 - FY 2004	FY 2020	Nevada Department of Wildlife, Arizona Department of Game and Fish, Texas Department of Parks and Wildlife, New Mexico Department of Fish & Wildlife, Middle Rio Grande Conservancy District, Multi-Species Conservation Program, Lower Colorado River, U.S. Bureau of Land Management, U.S. Bureau of Reclamation, U.S. Department of Defense, U.S. Fish and Wildlife Service, California Department of Fish and Game, U.S. Forest Service, Colorado Division of Wildlife, Natural Resources Conservation Service	Management: Predator and Competitor Control	Species Expert	\$65,000/year per 5-trap site x 6 RU for 7 years. Consideration for baseline data has been used in decision making at Havasu, Big Sandy, San Pedro, Roosevelt, Alpine, and will be implemented at property managed by SRP acquired for their Roosevelt HCP.

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Southwestern willow flycatcher (Empidonax traillii extimus)	3	3.1.1.4	Pursue long-term landscape objectives for cowbird reduction	Not Started	FY 2000 - FY 2004	FY 2020	Nevada Department of Wildlife, National Tropical Botanical Garden, Arizona Department of Game and Fish, Texas Department of Parks and Wildlife, New Mexico Department of Fish & Wildlife, Middle Rio Grande Conservancy District, Multi-Species Conservation Program, Lower Colorado River, U.S. Bureau of Land Management, U.S. Department of Defense, U.S. Fish and Wildlife Service, California Department of Fish and Game, U.S. Forest Service, Colorado Division of Wildlife, Natural Resources Conservation Service	Management: Predator and Competitor Control	Species Expert	Coordinate with 2.1.4-2.1.6 and 3.1.1.2-3.1.1.3
Southwestern willow flycatcher (Empidonax traillii extimus)	2	3.1.2	Reduce direct impacts that topple or otherwise destroy nests	Ongoing Current	FY 1995 - FY 1999	FY 2020	U.S. Bureau of Land Management, U.S. Fish and Wildlife Service, U.S. Forest Service	Management: Other	Species Expert	Coordinate with 1.1.3.1.1.1 and 1.1.3.3.1. This component is broad and can involve inundation from dam operations, collision from cattle, vehicles, and hikers. Through Technical Assistance and section 7 projects we attempt to reduce these types of impacts.

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Southwestern willow flycatcher (Empidonax traillii extimus)	3	3.1.3	Reconsider assessment of habitat quality or other threats if cowbird control measures do not increase numbers of breeding flycatchers	Ongoing Current	FY 2000 - FY 2004	FY 2020	U.S. Bureau of Land Management, U.S. Fish and Wildlife Service, U.S. Geological Survey, U.S. Forest Service	Management: Predator and Competitor Control	Species Expert	Based on results from 3.1.1.3. We recognize the potential limitations associated with cowbird control and, for example, stopped cowbird trapping along the lower San Pedro due to the fact that it was believed it was ineffective.
Southwestern willow flycatcher (Empidonax traillii extimus)	2	4.1	Identify, for purposes of protection, riparian habitats in the U.S. to provide migration and stopover habitat.	Ongoing Current	FY 1995 - FY 1999	FY 2020	California Department of Parks and Recreation, Nevada Department of Wildlife, Nevada Division of State Parks, Irrigation Districts, Arizona Department of Game and Fish, Texas Department of Parks and Wildlife, New Mexico Department of Fish & Wildlife, Arizona State Parks, Colorado State Parks, New Mexico State Parks, U.S. Bureau of Land Management, U.S. Bureau of Reclamation, U.S. Department of Defense, U.S. Fish and Wildlife Service, California Department of Fish and Game, U.S. Forest Service, U.S. Army Corps of Engineers, Colorado Division of Wildlife	Research: Migration	Species Expert	Estimated funds for studies to complement ongoing research in each RU. No specific effort has occurred, but continued flycatcher surveys help to document the presence or absence of migrating flycatchers.

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Southwestern willow flycatcher (Empidonax traillii extimus)	2	4.2	Restore, protect and expand riparian migration and stopover habitats in the US	Ongoing Current	FY 1995 - FY 1999	FY 2020	California Department of Parks and Recreation, Nevada Department of Wildlife, Nevada Division of State Parks, Arizona Department of Game and Fish, Texas Department of Parks and Wildlife, New Mexico Department of Fish & Wildlife, Arizona State Parks, Colorado State Parks, New Mexico State Parks, U.S. Bureau of Land Management, U.S. Bureau of Reclamation, U.S. Department of Defense, U.S. Fish and Wildlife Service, California Department of Fish and Game, U.S. Forest Service, U.S. Army Corps of Engineers, Colorado Division of Wildlife	Management: Habitat Maintenance and Manipulation	Species Expert	Based on 4.1. Prioritize areas to protect. While areas have not been necessarily identified, overall we work with agencies through FWCA, NEPA, and ESA to minimize and reduce impacts to riparian habitat.
Southwestern willow flycatcher (Empidonax traillii extimus)	2	4.3	Pursue international partnerships to identify migration and winter habitats and threats	Ongoing Current	FY 1995 - FY 1999	FY 2020	Nevada Department of Wildlife, Arizona Department of Game and Fish, Texas Department of Parks and Wildlife, New Mexico Department of Fish & Wildlife, U.S. Bureau of Reclamation, U.S. Fish and Wildlife Service, U.S. Geological Survey, California Department of Fish and Game, Colorado Division of Wildlife	Research: Migration	Species Expert	Re-evaluate with 5-year recovery plan revision. USGS along with USBR have worked in central America to learn about the habits of wintering flycatchers.

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Southwestern willow flycatcher (Empidonax traillii extimus)	2	4.4	Encourage programs that preserve habitats used by wintering and migrating flycatchers	Ongoing Current	FY 1995 - FY 1999	FY 2020	U.S. Fish and Wildlife Service, U.S. Geological Survey	Management: Habitat Maintenance and Manipulation	Species Expert	Re-evaluate with 5-year recovery plan revision. Overall, projects that protect rivers, water in rivers, and riparian habitat should help benefit migrating flycatchers.
Southwestern willow flycatcher (Empidonax traillii extimus)	2	4.5	Encourage programs that minimize threats to wintering and migrating flycatchers	Ongoing Current	FY 1995 - FY 1999	FY 2020	U.S. Fish and Wildlife Service, U.S. Geological Survey	Management: Habitat Maintenance and Manipulation	Species Expert	Re-evaluate with 5-year recovery plan revision Overall, projects that protect rivers, water in rivers, and riparian habitat should help benefit migrating flycatchers.
Southwestern willow flycatcher (Empidonax traillii extimus)	2	5.1.1	Adopt standardized protocols for surveying and monitoring	Ongoing Current	FY 1995 - FY 1999	FY 2020	Nevada Department of Wildlife, Arizona Department of Game and Fish, Texas Department of Parks and Wildlife, New Mexico Department of Fish & Wildlife, U.S. Fish and Wildlife Service, California Department of Fish and Game, Colorado Division of Wildlife	Other: Regulations	Species Expert	Re-evaluate with 5 year recovery plan revisions. Protocol revisions have occurred twice since 1995, most recently in 2000.

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Southwestern willow flycatcher (Empidonax traillii extimus)	2	5.1.2	Institute appropriate monitoring of all reaches within management units	Ongoing Current	FY 2000 - FY 2004	FY 2020	Nevada Department of Wildlife, Arizona Department of Game and Fish, Texas Department of Parks and Wildlife, New Mexico Department of Fish & Wildlife, U.S. Bureau of Land Management, U.S. Bureau of Reclamation, U.S. Department of Defense, U.S. Fish and Wildlife Service, U.S. Geological Survey, California Department of Fish and Game, U.S. Forest Service, Colorado Division of Wildlife	Research: Population Surveys	Species Expert	Extrapolated from 2000-2001 statistics from BLM, FS. Portions of river reaches are surveyed for flycatchers, however there are many rivers and portions of river reaches that are not surveyed at all. Therefore, this objective is only partially ongoing.
Southwestern willow flycatcher (Empidonax traillii extimus)	2	5.1.3	Integrate survey data at state and rangewide levels	Ongoing Current	FY 1995 - FY 1999	FY 2020	Nevada Department of Wildlife, Arizona Department of Game and Fish, Texas Department of Parks and Wildlife, New Mexico Department of Fish & Wildlife, U.S. Fish and Wildlife Service, U.S. Geological Survey, California Department of Fish and Game, Colorado Division of Wildlife	Research: Population Surveys	Species Expert	Coordination currently exists between federal and state agencies to collect flycatcher survey data uniformly and to share information. AZ and NM have statewide databases, all data is presently compiled by USGS that produces rangewide reports.

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Southwestern willow flycatcher (Empidonax traillii extimus)	2	5.2.1	Review data to improve effectiveness of management and restoration practices	Ongoing Current	FY 2000 - FY 2004	FY 2020	Nevada Department of Wildlife, Arizona Department of Game and Fish, Texas Department of Parks and Wildlife, New Mexico Department of Fish & Wildlife, U.S. Fish and Wildlife Service, U.S. Geological Survey, California Department of Fish and Game, Colorado Division of Wildlife	Research: Management Techniques	Species Expert	<p>Funds for several team meetings per years.</p> <p>This is an ongoing issue that centers around restoration techniques that produce habitat useful for breeding flycatchers.</p> <p>Met with Havasu NWR to attempt to use information collected from Roosevelt/San Pedro and monitoring done by Br contractors along LCR to improve moisture around nesting territories to improve numbers, improve productivity.</p>
Southwestern willow flycatcher (Empidonax traillii extimus)	3	5.3	Survey to determine dispersal movements and colonization events	Ongoing Current	FY 2000 - FY 2004	FY 2020	Nevada Department of Wildlife, Arizona Department of Game and Fish, Texas Department of Parks and Wildlife, New Mexico Department of Fish & Wildlife, U.S. Bureau of Land Management, U.S. Bureau of Reclamation, U.S. Fish and Wildlife Service, U.S. Geological Survey, California Department of Fish and Game, U.S. Forest Service, Colorado Division of Wildlife	Research: Demographic Studies	Species Expert	<p>Same funds as 5.1.2.</p> <p>Flycatcher surveys are typically associated with preparation for projects or compliance and/or monitoring of incidental take. As a result, surveys occur, but rarely to purely determine dispersal movements and colonization events. Banded flycatchers and trying to understand these types of questions has occurred at Roosevelt Lake and the San Pedro River</p>
Southwestern willow flycatcher (Empidonax traillii extimus)	3	5.4	Expand survey efforts in wintering habitat	Ongoing Current	FY 1995 - FY 1999	FY 2020	U.S. Fish and Wildlife Service, U.S. Geological Survey	Research: Migration	Species Expert	Extrapolated from current USGS survey efforts in wintering habitat

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Southwestern willow flycatcher (Empidonax traillii extimus)	3	6.1.1	Determine plant species / structure that determines occupancy and reproductive success	Not Started	FY 1995 - FY 1999	FY 2020	Nevada Department of Wildlife, Arizona Department of Game and Fish, Texas Department of Parks and Wildlife, New Mexico Department of Fish & Wildlife, U.S. Bureau of Land Management, U.S. Geological Survey, California Department of Fish and Game, U.S. Forest Service, Colorado Division of Wildlife	Research: Habitat Requirements	Species Expert	Each survey effort records species. However, the specific structure of vegetation needs to be better defined.
Southwestern willow flycatcher (Empidonax traillii extimus)	3	6.1.2	Determine habitat area needed for breeding birds	Ongoing Current	FY 1995 - FY 1999	FY 2020	Nevada Department of Wildlife, Arizona Department of Game and Fish, Texas Department of Parks and Wildlife, New Mexico Department of Fish & Wildlife, U.S. Fish and Wildlife Service, U.S. Geological Survey, California Department of Fish and Game, Colorado Division of Wildlife	Research: Habitat Requirements	Species Expert	6 RU x 1 FTE/RU @ \$61,000 = \$366,000. Efforts in different locations, whether its the Cliff/Gila Valley in NM or model developed by AGFD, or models created for HCPs by SRP, and/or radiotracking done by USGS at Roosevelt is trying to accomplish some of this task. However, some are limited to the amount of habitat that would cause incidental take, others are looking at the habitat area used.

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Southwestern willow flycatcher (Empidonax traillii extimus)	3	6.1.3	Determine effects of conspecifics on site occupancy and reproductive success	Not Started	FY 2000 - FY 2004	FY 2020	Nevada Department of Wildlife, Arizona Department of Game and Fish, Texas Department of Parks and Wildlife, New Mexico Department of Fish & Wildlife, U.S. Fish and Wildlife Service, U.S. Geological Survey, California Department of Fish and Game, Colorado Division of Wildlife	Research: Competition	Species Expert	Estimated costs for two studies within the range
Southwestern willow flycatcher (Empidonax traillii extimus)	3	6.1.4	Determine use vs. availability of exotics in occupied sites	Ongoing Current	FY 2000 - FY 2004	FY 2020	Nevada Department of Wildlife, Arizona Department of Game and Fish, Texas Department of Parks and Wildlife, New Mexico Department of Fish & Wildlife, U.S. Bureau of Land Management, U.S. Bureau of Reclamation, U.S. Fish and Wildlife Service, U.S. Geological Survey, California Department of Fish and Game, U.S. Forest Service, Colorado Division of Wildlife	Research: Habitat Requirements	Species Expert	Estimated costs for one study within the range. Tracking of flycatchers at Roosevelt Lake partially answered this question for that specific area.
Southwestern willow flycatcher (Empidonax traillii extimus)	3	6.1.5	Determine long-term ecological productivity of native habitats vs. exotic habitats	Ongoing Current	FY 2000 - FY 2004	FY 2020	Nevada Department of Wildlife, Arizona Department of Game and Fish, Texas Department of Parks and Wildlife, New Mexico Department of Fish & Wildlife, U.S. Fish and Wildlife Service, U.S. Geological Survey, California Department of Fish and Game, Colorado Division of Wildlife	Research: Population Surveys	Species Expert	Estimated costs for one study within the range. USGS has been looking at productivity of exotics v. native at Roosevelt Lake, AZ. No difference in flycatcher performance or survivorship.

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Southwestern willow flycatcher (Empidonax traillii extimus)	3	6.1.6	Refine understanding of effects of physical microclimate on site occupancy and reproduction	Ongoing Current	FY 2000 - FY 2004	FY 2020	Nevada Department of Wildlife, Arizona Department of Game and Fish, Texas Department of Parks and Wildlife, New Mexico Department of Fish & Wildlife, U.S. Fish and Wildlife Service, U.S. Geological Survey, California Department of Fish and Game, Colorado Division of Wildlife	Research: Habitat Requirements	Species Expert	Estimated costs for one study within the range. SWCA, under contract with USBR is looking at microhabitat along the lower Colorado River, however the large range of the subspecies may cause conditions to be very different cross the birds range.
Southwestern willow flycatcher (Empidonax traillii extimus)	3	6.1.7	Determine influence of environmental toxins on breeding, survival, and prey base	Ongoing Current	FY 1995 - FY 1999	FY 2020	U.S. Fish and Wildlife Service, U.S. Geological Survey	Research: Environmental Contaminants	Species Expert	Estimated costs for one study within the range. One study looked at prey and contaminants in Arizona.
Southwestern willow flycatcher (Empidonax traillii extimus)	3	6.10	Conduct research on means of increasing reproductive success by approaches other than, or in addition to, cowbird management, such as reducing losses of flycatcher eggs and nestlings to general nest predators	Not Started	FY 2000 - FY 2004	FY 2020	U.S. Fish and Wildlife Service, U.S. Geological Survey	Research: Predation	Species Expert	Estimated costs for one study within the range to complement an ongoing nest monitoring study. I am not familiar with a study yet that has sought to control predators such as small mammals and/or non cowbird birds.

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Southwestern willow flycatcher (Empidonax traillii extimus)	3	6.11	Conduct research to determine why increases in reproductive success due to cowbird control or other measures may not lead to increases in numbers of breeding birds in populations experiencing improved reproductive success or in populations that could receive emigrants from such populations	Not Started	FY 2000 - FY 2004	FY 2020	U.S. Geological Survey	Research: Predation	Species Expert	Estimated costs for one study within the range to complement an ongoing study.
Southwestern willow flycatcher (Empidonax traillii extimus)	3	6.12.1	Evaluate fuel reduction techniques in riparian habitat, especially tamarisk types	Ongoing Current	FY 2000 - FY 2004	FY 2020	Nevada Department of Wildlife, Arizona Department of Game and Fish, Texas Department of Parks and Wildlife, New Mexico Department of Fish & Wildlife, U.S. Bureau of Land Management, U.S. Department of Defense, U.S. Fish and Wildlife Service, U.S. Geological Survey, California Department of Fish and Game, U.S. Forest Service, Colorado Division of Wildlife	Management: Habitat Maintenance and Manipulation	Species Expert	Estimated costs for one assessment within the range to complement ongoing fuel reduction activities. Periodic fuels reduction efforts have occurred along Rio Grande and along Lower Colorado River area to reduce spread of fire and produce fire breaks in order to limit fires in tamarisk when they occur.
Southwestern willow flycatcher (Empidonax traillii extimus)	3	6.12.2	Test modifying flammability for fuels to modify fire risks	Not Started	FY 2000 - FY 2004	FY 2020	U.S. Bureau of Land Management, U.S. Department of Defense, U.S. Fish and Wildlife Service, U.S. Geological Survey, U.S. Forest Service	Management: Habitat Maintenance and Manipulation	Species Expert	

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Southwestern willow flycatcher (Empidonax traillii extimus)	3	6.12.3	Test prescribed fire to achieve desired fire hazard reduction, habitat protection, and habitat improvement	Not Started	FY 2000 - FY 2004	FY 2020	Nevada Department of Wildlife, Arizona Department of Game and Fish, Texas Department of Parks and Wildlife, New Mexico Department of Fish & Wildlife, U.S. Bureau of Land Management, U.S. Department of Defense, U.S. Fish and Wildlife Service, U.S. Geological Survey, California Department of Fish and Game, U.S. Forest Service, Colorado Division of Wildlife	Management: Habitat Maintenance and Manipulation	Species Expert	1 study (\$100,000) in each RU (6). Reevaluate with Recovery Plan revision
Southwestern willow flycatcher (Empidonax traillii extimus)	2	6.2	Investigate dam and reservoir management scenarios to determine thresholds for habitat suitability and to maximize habitat quality	Ongoing Current	FY 2000 - FY 2004	FY 2020	Glen Canyon Adaptive Management Workgroup, Multi-Species Conservation Program, Lower Colorado River, U.S. Bureau of Reclamation, U.S. Fish and Wildlife Service, U.S. Geological Survey, U.S. Army Corps of Engineers	Research: Habitat Requirements	Species Expert	Coordinate funds with feasibility studies in actions 1.1.2.1.3-1.1.2.1.7. Some efforts are occurring at specific locations where feasible, to investigate operations that can maximize flycatcher habitat abundance and persistence over time. This is occurring at Alamo Dam on Bill Williams River in AZ and to some extent, at Horseshoe Res along Verde River in AZ, however at Horseshoe the purpose is more to minimize effects, rather to maximize persistence.

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Southwestern willow flycatcher (Empidonax traillii extimus)	2	6.3	Investigate surface and groundwater management scenarios to determine thresholds for habitat suitability and to maximize habitat quality	Ongoing Current	FY 2000 - FY 2004	FY 2020	Nevada Department of Wildlife, Arizona Department of Game and Fish, Texas Department of Parks and Wildlife, New Mexico Department of Fish & Wildlife, U.S. Bureau of Reclamation, U.S. Fish and Wildlife Service, U.S. Geological Survey, California Department of Fish and Game, Colorado Division of Wildlife	Research: Habitat Requirements	Species Expert	Same funds as 1.1.2.2.1.1. Some locations there are studies responding to groundwater withdrawals and/or river flow to determine response of riparian vegetation. This is occurring along San Pedro/Gila Rivre confluence.
Southwestern willow flycatcher (Empidonax traillii extimus)	2	6.4.1	Investigate grazing systems, strategies, and intensities for riparian recovery and maintenance	Not Started	FY 2000 - FY 2004	FY 2020	U.S. Bureau of Land Management, U.S. Fish and Wildlife Service, U.S. Forest Service	Research: Habitat Requirements	Species Expert	Same funds as 1.1.3.1.1.1. Forest Service and BLM are primary managers of grazing lands where flycatchers persist. Forest does some monitoring of riparian areas, but has not necessarily initiated flycatcher specific grazing investigations that we are familiar with.
Southwestern willow flycatcher (Empidonax traillii extimus)	3	6.4.2	Investigate direct effects of livestock grazing on the flycatcher	Not Started	FY 2000 - FY 2004	FY 2020	U.S. Bureau of Land Management, U.S. Fish and Wildlife Service, U.S. Forest Service	Research: Other Information	Species Expert	Same funds as 1.1.3.1.1.1

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Southwestern willow flycatcher (Empidonax traillii extimus)	3	6.4.3	Investigate impacts of native ungulates on riparian recovery and maintenance	Not Started	FY 2000 - FY 2004	FY 2020	Nevada Department of Wildlife, Arizona Department of Game and Fish, Texas Department of Parks and Wildlife, New Mexico Department of Fish & Wildlife, U.S. Bureau of Land Management, U.S. Fish and Wildlife Service, California Department of Fish and Game, U.S. Forest Service, Colorado Division of Wildlife	Research: Habitat Requirements	Species Expert	Estimated funds for one study within the range
Southwestern willow flycatcher (Empidonax traillii extimus)	2	6.5.1	Collect baseline data on cowbird parasitism	Ongoing Current	FY 2000 - FY 2004	FY 2020	Nevada Department of Wildlife, Arizona Department of Game and Fish, Texas Department of Parks and Wildlife, New Mexico Department of Fish & Wildlife, U.S. Bureau of Land Management, U.S. Bureau of Reclamation, U.S. Fish and Wildlife Service, U.S. Geological Survey, California Department of Fish and Game, U.S. Forest Service, Colorado Division of Wildlife	Research: Predation	Species Expert	See 3.1.1.2 Has occurred at some places of the birds range, such as the San Pedro/Gila River confluence, Colorado River near Havasu, Alpine, Roosevelt Lake, Big Sandy River...other places in the bird's range where nest monitoring is thoroughly occurs.
Southwestern willow flycatcher (Empidonax traillii extimus)	3	6.5.2	Experimentally test the efficacy of cowbird trapping programs	Ongoing Current	FY 2000 - FY 2004	FY 2020	U.S. Geological Survey	Work type not yet selected	Labor type not yet selected	Coordinate funds with programs from 3.1.1.3

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Southwestern willow flycatcher (Empidonax traillii extimus)	2	6.6	Determine the most successful techniques for creating or restoring suitable habitat to degraded or former riparian lands, such as abandoned agricultural fields in riparian corridors	Ongoing Current	FY 2000 - FY 2004	FY 2020	Irrigation Districts, Middle Rio Grande Conservancy District, Multi-Species Conservation Program, Lower Colorado River, U.S. Department of Agriculture, U.S. Geological Survey	Research: Habitat Requirements	Species Expert	Based on efforts to create 11ha of suitable habitat in each RU each year for 10 years. 11ha x \$2,600 x 6RU = \$172,000. Success of this may be variable depending on location, climate, elevation, plant species, etc. Therefore techniques being initiated on Lower Colorado River, may not be appropriate for high elevation sites in Colorado or along the Rio Grande. However, agricultural areas on LCR and along Salt River are attempting to be restored to habitat for the flycatcher
Southwestern willow flycatcher (Empidonax traillii extimus)	2	6.7.1	Acquire demographic and dispersal information	Ongoing Current	FY 1995 - FY 1999	FY 2020	Nevada Department of Wildlife, Arizona Department of Game and Fish, Texas Department of Parks and Wildlife, New Mexico Department of Fish & Wildlife, U.S. Bureau of Land Management, U.S. Bureau of Reclamation, U.S. Fish and Wildlife Service, U.S. Geological Survey, California Department of Fish and Game, U.S. Forest Service, Colorado Division of Wildlife	Research: Demographic Studies	Species Expert	Complement ongoing surveys rangewide

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Southwestern willow flycatcher (Empidonax traillii extimus)	2	6.7.2	Conduct limiting factor analysis	Not Started	FY 2000 - FY 2004	FY 2020	Nevada Department of Wildlife, Arizona Department of Game and Fish, Texas Department of Parks and Wildlife, New Mexico Department of Fish & Wildlife, U.S. Fish and Wildlife Service, U.S. Geological Survey, California Department of Fish and Game, Colorado Division of Wildlife	Research: Demographic Studies	Species Expert	Estimated costs for one study within the range
Southwestern willow flycatcher (Empidonax traillii extimus)	3	6.7.3	Explore new methods and data needs for population viability analyses	Not Started	FY 2000 - FY 2004	FY 2020	U.S. Fish and Wildlife Service, U.S. Geological Survey	Research: Demographic Studies	Species Expert	Coordinate funds with 5.1.3 and 5.2.1
Southwestern willow flycatcher (Empidonax traillii extimus)	3	6.7.4	Develop methodologies, which can be site specific if necessary, for determining year-to-year trends in population sizes at breeding sites.	Not Started	FY 2000 - FY 2004	FY 2020	Nevada Department of Wildlife, Arizona Department of Game and Fish, Texas Department of Parks and Wildlife, New Mexico Department of Fish & Wildlife, U.S. Fish and Wildlife Service, U.S. Geological Survey, California Department of Fish and Game, Colorado Division of Wildlife	Work type not yet selected	Labor type not yet selected	Complement ongoing surveys rangewide
Southwestern willow flycatcher (Empidonax traillii extimus)	3	6.7.5	Establish and refine protocols for addressing flycatcher distribution	Ongoing Current	FY 1995 - FY 1999	FY 2020	Nevada Department of Wildlife, Arizona Department of Game and Fish, Texas Department of Parks and Wildlife, New Mexico Department of Fish & Wildlife, U.S. Fish and Wildlife Service, U.S. Geological Survey, California Department of Fish and Game, Colorado Division of Wildlife	Other: Regulations	Species Expert	Complement ongoing studies rangewide, 2 revisions of survey protocol have occurred since 1995.

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Southwestern willow flycatcher (Empidonax traillii extimus)	3	6.8	Determine present and historical distribution of the subspecies through genetic work	Ongoing Current	FY 1995 - FY 1999	FY 2020	U.S. Geological Survey	Research: Genetics	Species Expert	Estimated costs for one study within the range. USGS has collected blood rangewide, sonograms have also be examined. Currently some conflicts in results between genetics and sonograms have occurred in southern Colorado. Additional vocalization work was completed to help determine individuals.
Southwestern willow flycatcher (Empidonax traillii extimus)	3	6.9.1	Investigate migration ecology, habitat selection and use.	Ongoing Current	FY 1995 - FY 1999	FY 2020	U.S. Geological Survey	Research: Migration	Species Expert	Continue ongoing work
Southwestern willow flycatcher (Empidonax traillii extimus)	3	6.9.2	Investigate wintering distribution, status, ecology and habitat selection	Ongoing Current	FY 1995 - FY 1999	FY 2020	U.S. Geological Survey	Research: Migration	Species Expert	Continue ongoing work. USGS, USBR have conducted studies in Costa Rica, Nicaragua on habitats used by wintering WIFLs.
Southwestern willow flycatcher (Empidonax traillii extimus)	3	6.9.3	Determine influence of environmental toxins on wintering flycatchers and their prey base	Not Started	FY 1995 - FY 1999	FY 2020	U.S. Fish and Wildlife Service, U.S. Geological Survey	Research: Environmental Contaminants	Species Expert	Estimated costs for one study. Has occurred in North America, but task has not occurred in central or south america.

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Southwestern willow flycatcher (Empidonax traillii extimus)	3	7.1	Hold annual implementation subgroup meetings	Planned	FY 2000 - FY 2004	FY 2020	Southwestern Willow Flycatcher Recovery Team Technical Subgroup, Southwestern Willow Flycatcher Recovery Team Implementation Subgroups	Other: Administration	Internal Administrative	Same duration and funds as 9.1 Investigations into beginning these meeting has occurred. Similar types of meetings are held in central Arizona by cooperating partners and in southern California. More effort needs to be placed into these meetings. A Recovery Team meeting prior to this was considered in early 07, but funding was a limiting factor.
Southwestern willow flycatcher (Empidonax traillii extimus)	3	7.2	Maintain updated website	Ongoing Current	FY 1995 - FY 1999	FY 2020	U.S. Fish and Wildlife Service, U.S. Geological Survey	Other: Information and Education	Internal Technical Assistance	Repeat 5 year time cycle as needed, based on plan revisions WIFL species page at AESO is updated with information that is completed. USGS maintains WIFL web site with lots of publications.
Southwestern willow flycatcher (Empidonax traillii extimus)	3	7.3.1	Educate the public about landscaping with native plants	Ongoing Current	FY 1995 - FY 1999	FY 2020	Nevada Department of Wildlife, Arizona Department of Game and Fish, Texas Department of Parks and Wildlife, New Mexico Department of Fish & Wildlife, U.S. Department of Agriculture, U.S. Department of Interior, California Department of Fish and Game, Colorado Division of Wildlife	Other: Information and Education	Species Expert	Revise public education focal themes based on plan revisions. Same funds as 1.1.3.2 We have worked with housing developer to provide informational material about exotic plants, exotic birds, cowbirds, etc.

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Southwestern willow flycatcher (Empidonax traillii extimus)	3	7.3.2	Educate the public about recreational impacts, especially about fire hazards	Ongoing Current	FY 1995 - FY 1999	FY 2020	Nevada Department of Wildlife, Arizona Department of Game and Fish, Texas Department of Parks and Wildlife, New Mexico Department of Fish & Wildlife, U.S. Department of Agriculture, U.S. Department of Interior, California Department of Fish and Game, Colorado Division of Wildlife	Other: Information and Education	Species Expert	Revise public education focal themes based on plan revision. Same funds as 1.1.2.3.5. We have provided presentations to the public across 5 states for critical habitat hearings, open houses, and scoping on the impact tamarisk can have on increasing fire risk in riparian areas. Fire plans are being developed through section 7 and section 10 projects, etc. FS is educating recreationists at Roosevelt through signs on fire risk. Larger fire education efforts are occurring due to drought.
Southwestern willow flycatcher (Empidonax traillii extimus)	3	7.3.3	Educate the public that cowbird parasitism is a natural process but may require management efforts in some instances due to high levels or other stressors that have endangered flycatchers	Ongoing Current	FY 1995 - FY 1999	FY 2020	Nevada Department of Wildlife, Arizona Department of Game and Fish, Texas Department of Parks and Wildlife, New Mexico Department of Fish & Wildlife, U.S. Department of Agriculture, U.S. Department of Interior, California Department of Fish and Game, Colorado Division of Wildlife	Other: Information and Education	Species Expert	*Could include brochures / printed materials, information sessions, presentations for recreationists (e.g., campfire talks). We already, during critical habitat hearings/scoping, and open houses provided some information on cowbirds. We continue to inform resource managers on these topics. During section 7 consultations we have educated housing developers on issues such as cowbirds.

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Southwestern willow flycatcher (Empidonax traillii extimus)	3	7.4	Post and maintain signs at some protected flycatcher breeding locations	Ongoing Current	FY 1995 - FY 1999	FY 2020	California Department of Parks and Recreation, Nevada Department of Wildlife, Nevada Division of State Parks, Arizona Department of Game and Fish, Texas Department of Parks and Wildlife, New Mexico Department of Fish & Wildlife, Arizona State Parks, Colorado State Parks, New Mexico State Parks, U.S. Bureau of Land Management, National Park Service, U.S. Fish and Wildlife Service, California Department of Fish and Game, U.S. Forest Service, Colorado Division of Wildlife	Management: Habitat Maintenance and Manipulation	Species Expert	Coordinate funds with 1.1.3.3.1 We know this has occurred at Roosevelt Lake and at some of the various TNC properties along the San Pedro River in order to prevent damage from recreation such as ATVs and fire.
Southwestern willow flycatcher (Empidonax traillii extimus)	3	7.5	Conduct information exchange programs with foreign governments and publics	Ongoing Current	FY 1995 - FY 1999	FY 2020	U.S. Fish and Wildlife Service, U.S. Geological Survey	Other: Information and Education	Species Expert	Reclamation and Sonoran Joint Venture have worked with Mexico and Mexican Biologists to conduct surveys. USGS and USBR have worked to conduct wintering surveys in central and northern south america.
Southwestern willow flycatcher (Empidonax traillii extimus)	3	7.6	Conduct symposia and workshops	Ongoing Current	FY 1995 - FY 1999	FY 2020	U.S. Fish and Wildlife Service, U.S. Geological Survey	Other: Information and Education	Species Expert	1 workshop every 10 years. \$25,000 in 2012, 2022 and 2032. One workshop/symposium occurred in 1999/2000 at ASU. Discussion is underway for a possible second.

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Southwestern willow flycatcher (Empidonax traillii extimus)	2	7.7	Continue survey training	Ongoing Current	FY 1995 - FY 1999	FY 2020	Nevada Department of Wildlife, Arizona Department of Game and Fish, Texas Department of Parks and Wildlife, New Mexico Department of Fish & Wildlife, U.S. Fish and Wildlife Service, U.S. Geological Survey, California Department of Fish and Game, Colorado Division of Wildlife	Other: Information and Education	Species Expert	FWS, State Game and Fish Depts, USGS and others are providing training annually
Southwestern willow flycatcher (Empidonax traillii extimus)	1	8.1	Fully implement 7(a)(1) of the ESA	Ongoing Current	FY 1995 - FY 1999	FY 2020	National Tropical Botanical Garden, U.S. Bureau of Land Management, U.S. Bureau of Reclamation, U.S. Department of Defense, National Park Service, U.S. Fish and Wildlife Service, U.S. Geological Survey, U.S. Forest Service, Natural Resources Conservation Service	Other: Regulations	Internal Administrative	A continuing effort to accomplish.
Southwestern willow flycatcher (Empidonax traillii extimus)	1	8.2	Fully implement all Biological Opinions resulting from ESA 7(a)(2) consultations	Ongoing Current	FY 1995 - FY 1999	FY 2020	National Tropical Botanical Garden, U.S. Bureau of Land Management, U.S. Bureau of Reclamation, U.S. Department of Defense, National Park Service, U.S. Fish and Wildlife Service, U.S. Geological Survey, U.S. Forest Service, Natural Resources Conservation Service	Other: Regulations	Internal Administrative	A continuing effort to try and accomplish.

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Southwestern willow flycatcher (Empidonax traillii extimus)	2	8.3.1	Support compliance with ESA 7(a)(1)	Ongoing Current	FY 1995 - FY 1999	FY 2020	U.S. Bureau of Land Management, U.S. Bureau of Reclamation, U.S. Department of Defense, National Park Service, U.S. Fish and Wildlife Service, U.S. Geological Survey, U.S. Forest Service, Natural Resources Conservation Service	Other: Regulations	Internal Administrative	1FTE @ \$61,000 x 3 FWS Regions = \$183,000. Estimated for five year periods to be revised and continued as needed
Southwestern willow flycatcher (Empidonax traillii extimus)	3	8.3.2	Provide resource managers with training in conservation benefits	Ongoing Current	FY 1995 - FY 1999	FY 2020	California Department of Parks and Recreation, Nevada Department of Wildlife, Nevada Division of State Parks, National Tropical Botanical Garden, Arizona Department of Game and Fish, Texas Department of Parks and Wildlife, New Mexico Department of Fish & Wildlife, Arizona State Parks, Colorado State Parks, New Mexico State Parks, U.S. Bureau of Land Management, U.S. Bureau of Reclamation, U.S. Department of Defense, National Park Service, U.S. Fish and Wildlife Service, U.S. Geological Survey, California Department of Fish and Game, U.S. Forest Service, Colorado Division of Wildlife, Natural Resources Conservation Service	Other: Information and Education	Internal Administrative	Survey training occurs rangewide, AESO provided presentation to A-S NF on implementation of Recovery Plan. AESO and NMESO used recovery plan strategies for exotics in order to educate those working on exotic plant management plans in NM. AESO continues to inform other AESO staff and other resource managers on exotic plant management strategies from Recovery Plan.

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Southwestern willow flycatcher (Empidonax traillii extimus)	2	8.3.3	Monitor compliance with ESA 7(a)(2)	Ongoing Current	FY 1995 - FY 1999	FY 2020	U.S. Bureau of Land Management, U.S. Bureau of Reclamation, U.S. Department of Defense, National Park Service, U.S. Fish and Wildlife Service, U.S. Geological Survey, U.S. Forest Service, Natural Resources Conservation Service	Other: Regulations	Internal Administrative	Same funds as 8.3.1. All agencies review their compliance with this section as they implement or permit actions.
Southwestern willow flycatcher (Empidonax traillii extimus)	2	8.3.4	Ensure consistency among ESA 7(a)(2) consultations	Ongoing Current	FY 1995 - FY 1999	FY 2020	U.S. Fish and Wildlife Service	Other: Regulations	Internal Administrative	Same funds as 8.3.1. Many field offices post section 7 opinions on their web sites and biologists periodically discuss how to evaluate proposed projects.
Southwestern willow flycatcher (Empidonax traillii extimus)	2	8.3.5	Monitor compliance with existing Biological Options	Ongoing Current	FY 1995 - FY 1999	FY 2020	U.S. Bureau of Land Management, U.S. Bureau of Reclamation, U.S. Department of Defense, National Park Service, U.S. Fish and Wildlife Service, U.S. Geological Survey, U.S. Forest Service, Natural Resources Conservation Service	Other: Regulations	Internal Administrative	Same funds as 8.3.1. All agencies consulting with FWS including FWS are expected to monitor compliance with their proposed projects.
Southwestern willow flycatcher (Empidonax traillii extimus)	2	8.4	Integrate recovery efforts with those for other species	Ongoing Current	FY 1995 - FY 1999	FY 2020	Southwestern Willow Flycatcher Recovery Team Technical Subgroup, Southwestern Willow Flycatcher Recovery Team Implementation Subgroups	Management: Land Use	Species Expert	Same funds as 9.1 Implementing measures that increase riparian habitat, improve river health, and improve water would also expect to improve the ability for all aquatic and riparian based listed species and non-listed species.

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Southwestern willow flycatcher (Empidonax traillii extimus)	2	8.5	Monitor compliance and effectiveness of agreements and other mechanisms used as delisting criteria	Ongoing Current	FY 2000 - FY 2004	FY 2020	U.S. Fish and Wildlife Service	Work type not yet selected	Internal Technical Assistance	Action would begin at downlisting; downlisting is estimated to occur in 20 years, however agreements are being developed in the meantime and collectively are being evaluated as they are being developed.
Southwestern willow flycatcher (Empidonax traillii extimus)	2	8.6.1	Effectively communicate with Tribes	Ongoing Current	FY 1995 - FY 1999	FY 2020	U.S. Bureau of Land Management, U.S. Bureau of Reclamation, U.S. Department of Defense, National Park Service, U.S. Fish and Wildlife Service, U.S. Geological Survey, U.S. Forest Service, Natural Resources Conservation Service	Other	Internal Administrative	Can get accomplished through existing and ongoing program activities; no new \$ needed
Southwestern willow flycatcher (Empidonax traillii extimus)	3	9.1	Maintain collaborative structure of Recovery Team	Ongoing Current	FY 2000 - FY 2004	FY 2020	Southwestern Willow Flycatcher Recovery Team Technical Subgroup, Southwestern Willow Flycatcher Recovery Team Implementation Subgroups, U.S. Fish and Wildlife Service	Other	Internal Administrative	\$20,000 each year, \$40,000 in fifth year to revise plan. Repeat as necessary Members of Technical Recovery Team communicate periodically on subjects.
Southwestern willow flycatcher (Empidonax traillii extimus)	2	9.2	Annual review of survey and monitoring data	Ongoing Current	FY 1995 - FY 1999	FY 2020	Southwestern Willow Flycatcher Recovery Team Technical Subgroup	Research: Population Surveys	Species Expert	Same funds as 9.1. FWS along with partners continue to review annual survey data.

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Southwestern willow flycatcher (Empidonax traillii extimus)	2	9.3	Review and synthesis of current flycatcher research and other pertinent research	Ongoing Current	FY 1995 - FY 1999	FY 2020	Nevada Department of Wildlife, Arizona Department of Game and Fish, Texas Department of Parks and Wildlife, New Mexico Department of Fish & Wildlife, U.S. Fish and Wildlife Service, U.S. Geological Survey, California Department of Fish and Game, Colorado Division of Wildlife	Research: General	Species Expert	everyone continues to read published and unpublished work on flycatchers.
Southwestern willow flycatcher (Empidonax traillii extimus)	3	9.4	Repeat population viability analysis	Planned	FY 2000 - FY 2004	FY 2020	U.S. Fish and Wildlife Service, U.S. Geological Survey	Research: Demographic Studies	Graduate Student	4th & 5th years, Patrick Dockens at ASU is planning for his Master's Thesis to update PVA
Southwestern willow flycatcher (Empidonax traillii extimus)	2	9.5	Develop recommendation for survey and monitoring strategies	Ongoing Current	FY 1995 - FY 1999	FY 2020	Nevada Department of Wildlife, Arizona Department of Game and Fish, Texas Department of Parks and Wildlife, New Mexico Department of Fish & Wildlife, U.S. Fish and Wildlife Service, U.S. Geological Survey, California Department of Fish and Game, Colorado Division of Wildlife	Research: Population Surveys	Species Expert	Coordinate funds with 9.1.-9.3 FWS improved survey monitoring protocol in 2000 to address needs to improve confidence for project related surveys.
Southwestern willow flycatcher (Empidonax traillii extimus)	2	9.6	Update recovery plan every 5 years	Not Started	FY 2000 - FY 2004	FY 2020	Southwestern Willow Flycatcher Recovery Team Technical Subgroup, Southwestern Willow Flycatcher Recovery Team Implementation Subgroups, U.S. Fish and Wildlife Service	Other: Administration	Internal Administrative	